

PEO
STRI

TRAINING & SIMULATION

INDUSTRY SYMPOSIUM



**COL Mike
Flanagan
Project Manager
Training Devices (PM TRADE)**





Project Manager Training Devices



PM TRADE

VISION: To be the first-choice provider of innovative Live Training solutions for the Warfighter and Coalition Partners.



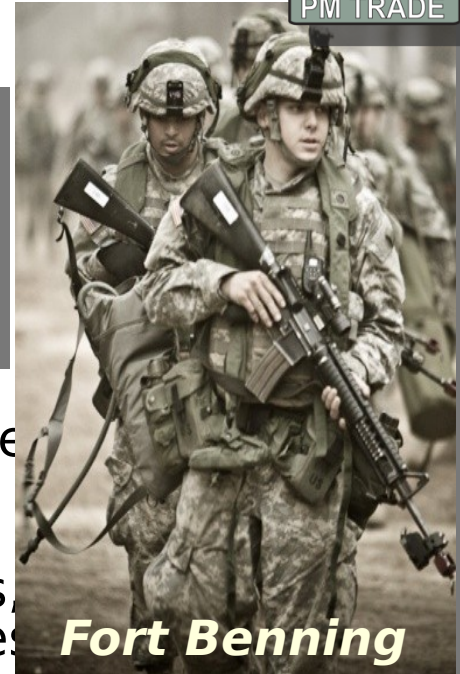
Ft. Campbell



Ft. Drum



Camp Blanding, FL



Fort Benning

MISSION: Lead lifecycle management of collective Live Training capabilities that are interoperable with Virtual and Constructive simulations for use at Homestations, Maneuver Combat Training Centers and deployed sites to improve Warfighter readiness in peace and war

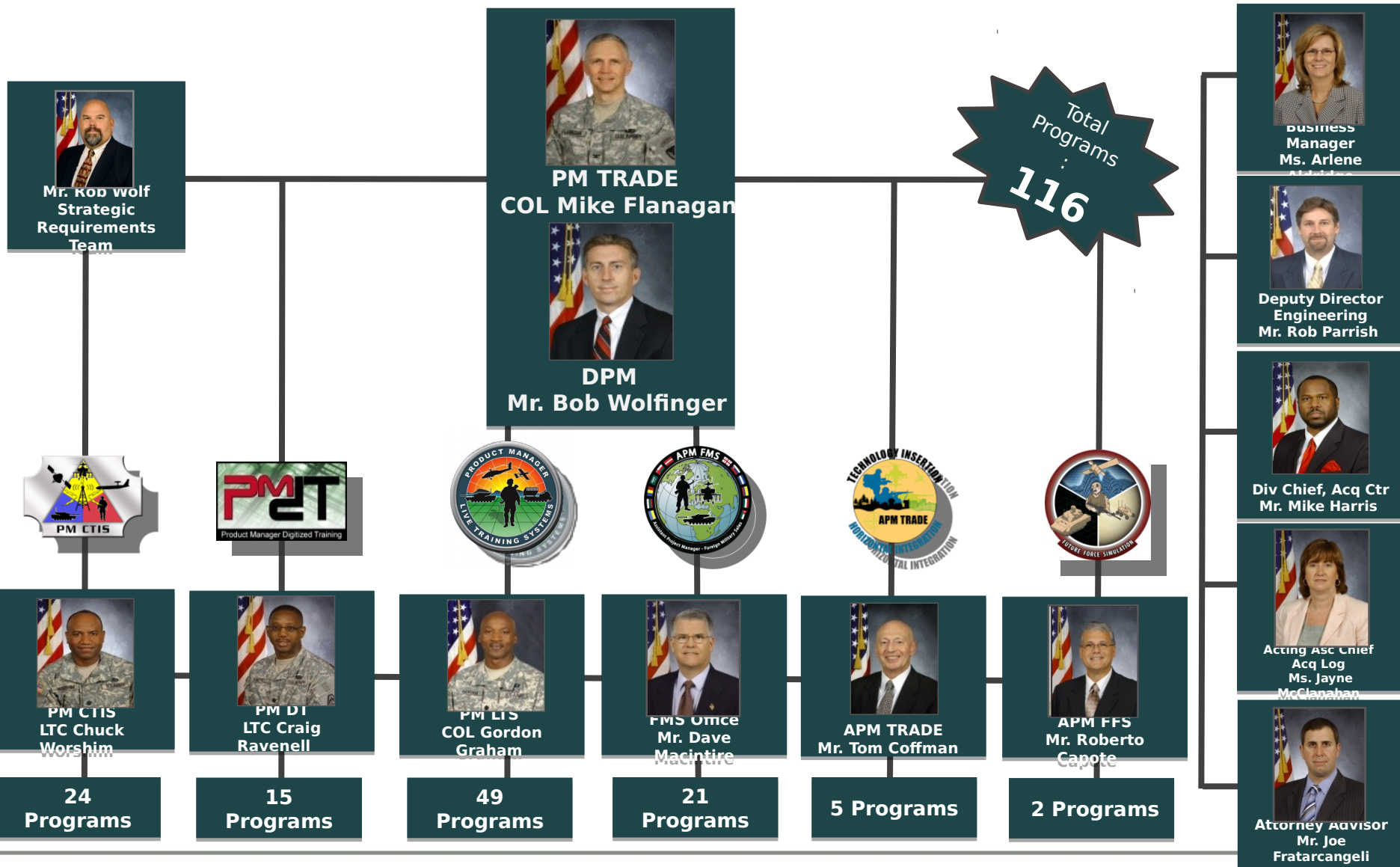


Afghanistan



NTC

PM TRADE Project Management Office





Live Training Agenda



- PM TRADE/PM TRASYS Partnership
- Industry Business Dev. Planning Map
- Live Training Systems of Systems
- Business Opportunities
- Live Training Standards and Workshops
- Trends in Training – TRADOC Perspective

PM TRADE/PM TRASYS Partnership



□ Common Themes

- Common Training Instrumentation Architecture (CTIA)
- Consolidated Product-line Management (CPM)
- Marine Corps – Instrumented Training System (MC-ITS)
- Target synchronization
- Future Army System of Integrated Targets (FASIT)

□ Initiatives

- Player Unit (PU) radio and Spectrum
- Tactical Engagement Simulation Systems (TESS)
- Immersive environments
- Architecture migration & evolution
- Cultural training (role players)

***Train to Fight, Fight to Win
TOGETHER***



Industry Business Dev. Planning Map

PM TRADE Acquisition Transformation: Process / Product /

Organization



PM TRADE

Program Development Timeline Estimates and Information Release Terminology

Consistency & Quality

1
Request
For
Informati
on
(RFI)

Market

- ✓ Initial Research Investigation of Industry Base Capability

Sources
Sought

- ✓ Requirement Documentation for Industry Comment (2nd round may occur for complex programs)

3

Pink
Team
Review

Draft RFP

- ✓ Limited Technical/ Business Case Information to Frame Investigation

- Business Case Information
- Key Technical Documents

- ✓ Mature Draft Package with Finalized Specification, SOW, and CDRLS

4

Red
Team
Review

Final RFP

- ✓ Phone Calls, Open House, Contractor Plant Visits, etc.
- Rough Planning Guide
Proposal Due in ~ ...

- Industry Day with One-on-Ones

5

Proposa
Is Due

D~270

D~180

D~120

D~60/45

D-0

~90 Days

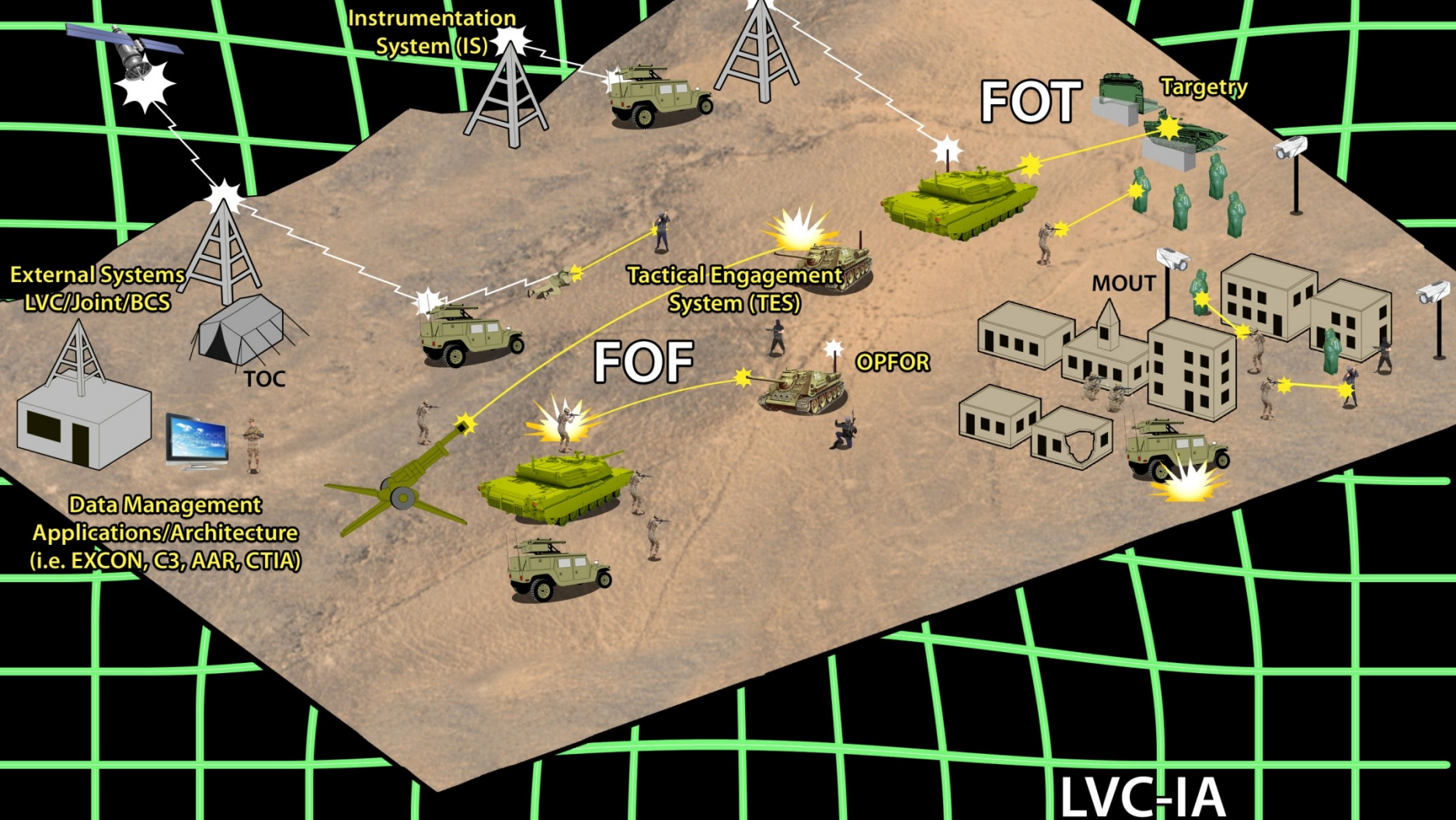
~60 Days

~60 Days

~60 Days

Approximate Timelines Adjusted +/- Based on Program Complexity

Live Training



Business Opportunities



| <u>Organization</u> | <u>Program</u> | <u>RFP Release</u> | <u>Award Date</u> |
|----------------------------|-----------------------|---------------------------|--------------------------|
| PM DT | (BES) II | Nov 2011 | Apr 2012 |
| PM DT | CTC Live Fire | Dec 2011 | Mar 2012 |
| PM CTIS | CTC-IS Mod | Sep 2011 | May 2012 |
| PM CTIS | HITS EXCON | Jun 2011 | Sep 2011 |
| PM LTS | OSWV | TBD | Mar 2013 |
| PM DT | PDSS | Sep 2011 | Jan 2012 |
| PM DT | N-CHS | Sep 2011 | Jan 2012 |
| PM DT | CATSD | Oct 2011 | Jan 2012 |

BES II -- Battlefield Effects Simulator

CTC Live Fire -- CTC Live Fire Modernization

CTC-IS Mod -- CTC-IS Modernization

HITS EXCON -- Home Station Instrumentation Training System EXCON

OSWV -- Opposing Force Surrogate Wheeled Vehicle

PDSS -- Post Deployment Software Support

N-CHS -- Non-Contact Hit Sensor Development

CATSD -- Common Armor Target Silhouette Development

Battlefield Effects Simulator (BES) II



Description/Summary of Program Requirements:

BES II will produce a flash/bang and smoke signature, which simulates/replicates a large caliber weapon fire of a hostile threat.

BES II will simulate/replicate an impact round on an armor target using M34 (LA54) (Hostile Fire) Cartridges and M35 (LA53) (Target Hit) Cartridges.

It is anticipated that the Government will require delivery of up to 1200 or more BES launcher systems with associated equipment, initial spares, New Equipment Training (NET), and installation support for Fiscal Years 2012-2017 at various Army Installations world-wide.



Acquisition Strategy

- Outside of STOC II
- Competitive
- Single IDIQ Award

Period of Performance

- Base period: Apr 2012 to Mar 2017
- Five (5) years with a Three (3) year base period and two options for one year each

Milestones

Aug 2011



Industry
Day

Nov
2011



RFP
Release

Apr 2012



Contract
Award

Point of Contact

Name: Ms Randi Kahl
Organization: PM DT
Phone: 407-384-5194
Email: randi.kahl@us.army.mil

Funding

- Total funding (OPA) ~ \$35 M

Current Contract/Original Developer/OEM (if recompute)

- N61339-05-D-0019/Allied Tech LLC
- Solicitation W900KK-11-R-0008

CTC Live Fire Modernization

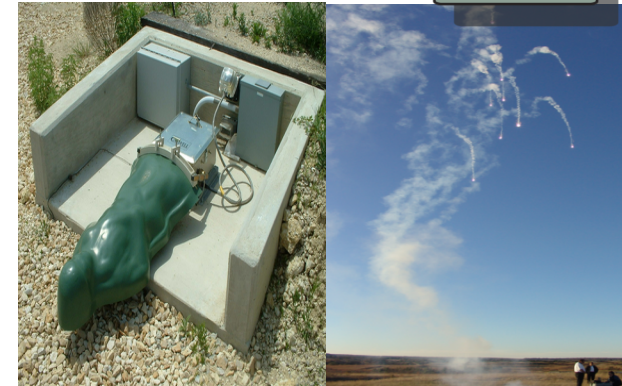


Description/Summary of Program

Requirements: Capabilities for the CTCs to support the transition from Mission Rehearsal Exercise/Situational Training Exercise (MRE/STX) rotations to Full Spectrum Operations (FSO) against a hybrid threat.

Requirements/Capabilities:

- Replaces Armor Tank Kill Simulators (Hoffman Devices) with the Battlefield Effects Simulator (BES)
- Refreshes/Replaces obsolete Target Lifters and Thermal Signature Devices



Acquisition Strategy

Range Targetry ATKS Replacement

- CARTS IDIQ; LOT II
- BES II IDIQ
- Competitive delivery order
- Competitive delivery order

Period of Performance

- FY12-17

Milestones

| | | |
|---|---|---|
| TBD | Dec 2011 | Mar 2012 |
|  |  |  |
| Industry Day | RFP Release | Award |

Point of Contact

Name: LTC Craig Ravenell
Organization: PM DT
Phone: 407-384-3972
Email:
craig.ravenell@us.army.mil

Funding

- FY12-13 funding (OPA) ~ \$5M

Current Contract/Original Developer/OEM (if recompetete)

N/A

CTC-IS Modernization






Description/Summary of Program

CTC-IS Modernization provides incremental upgrades to the CTC-IS infrastructure, voice, data and video at NTC and JRTC as well as life cycle technology refreshment of CTC-IS components to satisfy current and future force training requirements. Provides tools to establish high fidelity, cause and effect analysis of brigade and below collective training performance in full



spectrum ops in a variety of environments

| Acquisition Strategy | Period of Performance | Milestones |
|--|--|--|
| <ul style="list-style-type: none"> • STOC II Delivery Order • Full Open Competition • Cost Plus Fixed Fee | <ul style="list-style-type: none"> • Base 2-Year award with 3 option years | <div>Mar 2011</div>  <div>Industry Day</div> <div>Sep 2011</div>  <div>RFP Release</div> <div>May 2012</div>  <div>Contract Award</div> |
| Point of Contact | Contract Funding | Current Contract/Original Developer/OEM |
| PD: Ms. Anne Dunlap Office: PM CTIS Phone: 407-384-3615 Email: anne.dunlap1@us.army.mil | <ul style="list-style-type: none"> • RDTE FY 11 - 16: \$25 Million • OPA FY 12 - 16: \$220 Million | <ul style="list-style-type: none"> • Multiple contractors provide current CTC-IS capabilities. The LT2 FTS strategy provides a portal to share common solutions among all CTCs. |

Homestation Instrumentation Training System EXCON (HITS EXCON)



Description/Summary of Program

Requirements:

Provides deployable instrumented training capability to support platoon thru battalion level Live collective Force-on-Force maneuver training. HITS tracks locations of soldiers and vehicles and simulates weapons effects, allowing units to Train as they Fight against live opponents. HITS provides accurate feedback to training units. HITS consists of deployable components that can be rapidly assembled/disassembled and transported to support deployed training. HITS is integrated with legacy and future TES.



| | | | | | | | | | | | |
|---|--|---|--------|--------|--------|--|--|--|--------------|-------------|----------------|
| Acquisition Strategy <ul style="list-style-type: none"> • Mature, demonstrated capability; using LT2 ICDs • 8(a) Small Business • Life cycle support through | Period of Performance <ul style="list-style-type: none"> • Single IDIQ; five year contract with four ordering periods • Qty: 21 sites | Milestones <table> <tr> <td>Feb 11</td><td>Jun 11</td><td>Sep 11</td></tr> <tr> <td></td><td></td><td></td></tr> <tr> <td>Industry Day</td><td>RFP Release</td><td>Contract Award</td></tr> </table> | Feb 11 | Jun 11 | Sep 11 | | | | Industry Day | RFP Release | Contract Award |
| Feb 11 | Jun 11 | Sep 11 | | | | | | | | | |
| | | | | | | | | | | | |
| Industry Day | RFP Release | Contract Award | | | | | | | | | |
| Point of Contact Name: Ms. Christie Martinez Organization: PM CTIS Phone: (407) 208-3218 Email: christie.p.martinez@us.army.mil | Funding <ul style="list-style-type: none"> • \$20.6M OPA FY11-15 | Current Contract/Original Developer/OEM <ul style="list-style-type: none"> • First system built by IPKEYS, an SBA 8(a) Program participant. | | | | | | | | | |

Opposing Force Surrogate Wheeled Vehicle (OSWV)



Description/Summary of Program Requirements:

Upgrade US Army Combat Training Center Opposing Force Vehicles (Tactical, Technical, & COB Vehicles)

- **Tactical Vehicles:** Develop and Integrate Visual Modifications (VISMOSDS) on existing tactical vehicles - HMMWV ~ 69, APC ~123 (Vehicle Type TBD)
- **Technical Vehicles (Pick-Up Trucks w/ mounted weapons):** Acquire/configure ~270 with Weapon Mounts
- **Civilian On Battlefield Vehicles (COB-V):** ~450 used cars and trucks
- **Instrumentation:** MILES and CTC Radios integration (MILES/Radios acquired via current MILES contracts)

Acquisition Strategy

- Acq. Strategy TBD - Capability Production Document in Development
- Market Research to be conducted in early to mid FY12

Period of Performance

- TBD

Milestones

Jun 2012



Industry Day

Mar 2013



Contract Award

Point of Contact

Name: COL Gordon Graham
Organization: PM LTS
Phone: 407-384-5190
Email: gordon.graham@us.army.mil

Funding

- ~\$30M OPA on contract over FY13- FY16 (does not include MILES acquisition)

Current Contract/Original Developer/OEM (if recompete)

N/A

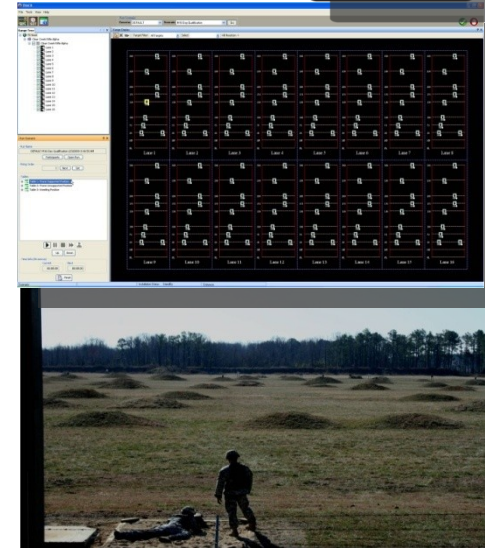
Target Modernization and Post Deployment Software Support



Description/Summary of Program Requirements:

The Target Modernization effort will provide the sustainment and support for the Government owned common target control system (Targetry Range Automated Control and Recording (TRACR)); integration of legacy target system adapters and new target system technologies; upgrade to existing range facilities; support for new interface control documents and technology demonstrations; and sustainment of the Future Army System of Integrated Targets (FASIT) specification and standards

TRACR/FASIT is located at 30 installations; 76 small arms and 27 maneuver ranges. There are approx. 20+ range upgrades in progress



Acquisition Strategy

- CARTS IDIQ; LOT II
- Competitive
- Single award

Period of Performance

- Base period: Sep 2011 to Aug 2015
- Base Year, plus four one-year options

Milestones



Point of Contact

Name: Mr. James Todd
Organization: PM DT
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james.todd3@us.army.mil

Funding

- ~\$800K OPA/RDT&E Base Year
- ~\$3.6M OPA/RDT&E Option Years

Current Contract/Original Developer/OEM

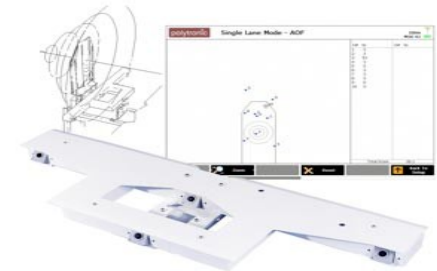
- LT2 Support Contract - Riptide
- CPM ID/IQ DO#04 - GDC4S

Target Modernization Non-Contact Hit Sensor Development



Description/Summary of Program Requirements:

The Non-Contact Hit Sensor will be designed and developed to track the location of miss and hit for both supersonic and subsonic munitions on live fire training ranges. Current small arms technology only supports supersonic munitions. The ability to detect subsonic rounds will lead to greater training fidelity in the realm of armored gunnery training as well as live fire exercises utilizing counter defilade and air-burst weapons, such as the MK-19 and M203. Portability, scalability, and stand-alone operations are key factors.



Acquisition Strategy

- CARTS IDIQ; LOT II
- Competitive
- Single award
- Three distinct phases: Technology study, Bread-board integration and Final

Period of Performance

- Sep 2011 to Mar 2013

Milestones



Point of Contact

Name: Mr. James Todd
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Funding

- ~\$100K RDT&E Phase I
- ~\$500K RDT&E Phase II
- ~\$400K RDT&E Phase III

Current Contract/Original Developer/OEM

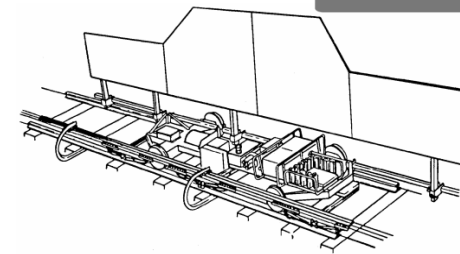
N/A

Target Modernization Common Armor Target Silhouette



Description/Summary of Program Requirements:

The Common Armor Target Silhouette will be designed and developed to create a standard armor silhouettes usable on all live fire training ranges, allow for the creation of a National Stock Number to support ordering and resupply, and reduce the overall weight of the armor silhouette. The aim will focus of the manufacturing, replication, recycling, durability, and ability to support current Combat Identification (CID) technologies. This effort will develop only a limited number of target silhouettes; if the concept/technologies prove viable, additional silhouettes will be developed. All silhouettes parameters are defined within TC 25-8.



Acquisition Strategy

- CARTS IDIQ; LOT III
- Competitive
- Single award
- Two phases: Definition and Prototype

Period of Performance

- 15 Month Award

Milestones

| Aug 2011 | Oct 2011 | Jan 2012 |
|-----------------|-----------|----------------|
| | | |
| Market Research | Draft RFP | Contract Award |

Release

Point of Contact

Name: Mr. James Todd
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Funding

- ~\$100K RDT&E Phase I
- ~\$300K RDT&E Phase II

Current Contract/Original Developer/OEM

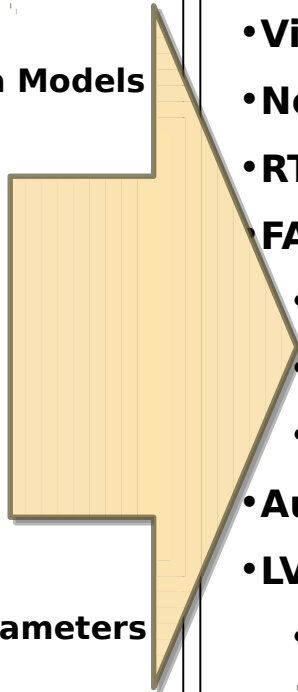
N/A

Live Training Standards & Workshops



Standardization of What?

- **Capabilities**
 - Instrumentation System (IS)
 - TESS
 - Targetry
- **Architecture**
 - Databases / Data Models
 - Services
 - Interfaces
- **SW Components**
 - C4I Interface
 - 2D Map
 - Tools
- **Processes**
 - LT2 ConOps
 - LT2 Portal
 - PL Acquisition
- **Requirements**
 - Specifications
 - Performance Parameters
- **Design**
 - CBT
 - GUI
- **Next Generation Distributed Training**



FY11

- IS-TESS Standard ✓
- PAN Standard ✓
- Video SOA Standard ✓
- Networks/Radio Comms Standard ✓
- RTCA Standard(s)
- FASIT ★
- Presentation Device 2.0 ✓
- Range Effects Devices ✓
- Sound Effects Devices
- Audio
- LVC
 - Interface (JBUS)
 - Terrain DB format

FY12 + Beyond

- Embedded Training
- Computer-Based Training
- Training Records
- Aviation Standards
- Power Standard
- Mobile App Framework
- Visual Cueing
- Smoke/Smell Generation
- Medical
- Electronic Warfare



Potential Workshops/Industry Forums



LIVE TRAINING COMMUNITY



HOME WELCOME NEWS/EVENTS PRODUCTS STANDARDS REFERENCES DEVELOPERS PM TOOLS SUPPORT LOGIN REGISTER

LOGIN

USER NAME

PASSWORD

Login

Register

NEWS/EVENTS

Events

News

PM TRADE implements new internal processes as a result of Tiger Team findings. After four months of analyzing our processes, conducting post mortem reviews of past and current programs, surveying our workforce, and listening to industry comments we are implementing a broad spectrum process that encompasses four key acquisition planning mission areas: Requirements Planning, Technical and Logistics Planning, Acquisition Planning, and Requirements Analysis. The PM TRADE Process Map facilitated by the Strategic Requirements Integration Team targets Process, Product, and Organizational improvements.

EDGE Call for Innovation

TRADOC Pamphlet (Pam) 525-8-3, The U.S. Army Training Concept, 2012-2020 (pub 7 Jan 2011), is the Army's visualization of how it will provide training for units to execute full-spectrum operations in a joint, interagency, intergovernmental, and multinational operational environment. This concept identifies desired current and future capabilities to overcome anticipated challenges in the training environment. This environment is characterized by persistent conflict, uncertainty and surprise in which there are multiple complex challenges across the globe. Distribution: This publication is available on the TRADOC Homepage at <http://www.tradoc.army.mil/tpubs/pamndx.htm>

Briefings

FSO Industry Day Presentation on 6 April 2011

CTC-IS Modernization Industry Day Brief on 1 March 2011

COL Flanagan's brief to Lockheed Martin Leadership Symposium on 1 Feb 2011

MITSEC 2010 FASIT Working Group Slides

External Links



PEOSTRI



WELCOME

NEWS/EVENTS

PRODUCTS

STANDARDS

REFERENCES

DEVELOPERS

PM TOOLS



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